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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,272	08/13/2001	Christoph Kirsch	4038.001	3234

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EXAMINER	
MARVICH, MARIA	

ART UNIT	PAPER NUMBER
1633	

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/831,272	KIRSCH ET AL.	
	Examiner	Art Unit	
	Maria B. Marvich, PhD	1633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 May 2005*.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-46* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 August 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This restriction is in response to an amendment filed 5/6/05. In the response to the office action mailed 7/28/04, applicants have requested rejoinder of withdrawn claims 4-7, 9-21 and 23-40. Applicants have requested rejoinder because the telephonic restriction requirement and initial withdrawal with traverse of claims 1, 4-7, 9-21 and 23-40 are not of record. In view of the lack of record regarding the restriction and traversal and applicant's request of rejoinder, a new restriction requirement is provided.

Furthermore, applicants request rejoinder of claims 42-46 with previously elected Group II. Applicants argue that the combination of SEQ ID NO:11 and SEQ ID NO:7 is within the scope of the election of SEQ ID NO:11.

Applicants' arguments have been persuasive in part. Claims 42-45 have been rejoined with Group II. However, claim 46 is unrelated to Group II as described below and has therefore not been rejoined with Group II.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1, 3-7, 9-15, 17-21, 30, 31 and 39, drawn to chimeric promoter, vectors, cells and plants comprising cis element comprising SEQ ID NO:3 or SEQ ID NO:4, classified in class 536, subclass 24.5.

II. Claims 2, 3, 8, 9, 22, 39 and 42-45, drawn to chimeric promoter, vectors, cells and plants comprising cis element comprising SEQ ID NO:11, classified in class 536, subclass 24.5.

III. Claims 16 and 33-34, drawn to a method of producing transgenic plants or pathogen resistant plants using Group I, classified in class 435, subclass 419.

IV. Claim 23-27 drawn to a method for identification of modulators of promoters comprising cis elements of Group I, classified in class 435, subclass 6.

V. Claim 28, 30 and 32, drawn to a compound identified by the method of Group IV, classified in class 514, subclass 1.

VI. Claim 29-31, drawn to an antibody recognizing the compound of Group II, classified in class 530, subclass 387.9.

VII. Claim 29-31, drawn to an antibody recognizing the cis element of Group IV, classified in class 530, subclass 387.9.

VIII. Claim 33 and 46, drawn to use of Group II to generate transgenic plants or pathogen resistant plants, drawn to class 435, subclass 419.

IX. Claim 33 and 40, drawn to use of Group V to generate pathogen resistant plants, drawn to class 435, subclass 419.

X. Claim 35-38, drawn to a method of preparing a promoter by operably linking a cis-element sufficient to direct elicitor –specific expression into a promoter, classified in class 435, subclass 91.41.

The inventions are distinct each from the other because of the following reasons:

The promoter of Group II and promoter of Group I are patentably distinct inventions for the following reasons. The promoters comprise unique, structurally distinct sequences as evidenced by their unique sequences represented by SEQ ID NO:3 and 4 versus SEQ ID NO:11.

Furthermore, SEQ ID NO:11 is called a D-box element and is from the parsley PR2 promoter while SEQ ID NO:3 is a W2 box from parsley PR1 promoter. Expression characteristics of the two are distinct as described in the specification . Although many constructs show induced expression around infection sites, the expression characteristics are different (page 40, last paragraph). For these reasons, the inventions of groups I and II are patentably distinct.

Furthermore, searching the inventions of Groups I and II together would impose a serious search burden. In the instant case, the search of each of the promoters is not coextensive. In cases such as this one where descriptive sequence information is provided, the sequences are searched in appropriate databases. There is search burden also in the non-patent literature. Art corresponding to a promoter sequences comprising SEQ ID NO: 3 and SEQ ID NO:4 would not necessarily overlap with art corresponding to a promoter comprising SEQ ID NO:11. As such, it would be burdensome to search the inventions of Groups I and II together.

The promoters of Group I and II and the antibodies of Groups VI and VII are unrelated. The polynucleotide of Group I and II and the antibody of group VI and VIII are patentably distinct for the following reasons. The antibody of Group VI and VII includes, for example, IgG molecules which comprise 2 heavy and 2 light chains containing constant and variable regions, and including framework regions which act as a scaffold for the 6 complementarity determining regions (CDRs). Polypeptides, such as the antibody of group II which are composed of amino acids, and polynucleotides, which are composed of nucleic acids, are structurally distinct molecules; any relationship between a polynucleotide and polypeptide is dependent upon the information provided by the nucleic acid sequence open reading frame as it corresponds to the primary amino acid sequence of the encoded polypeptide. In the present claims, a

polynucleotide of Group I and II will not encode an antibody of Group VI and VII, and the antibody of Group VI and VII cannot be encoded by a polynucleotide of group I and II. Therefore the antibody and polynucleotide are patentably distinct.

The antibody and polynucleotide inventions have a separate status in the art as shown by their different classifications. Furthermore, searching the inventions of Group I and II and Group VI and VII would impose a serious search burden since a search of the polynucleotide of Group I and II is would not be used to determine the patentability of an antibody of Group VI and VII, and vice-versa.

The compound of Group V and the promoter of Group I and II and antibodies of Groups VI and VII are unrelated. The compounds of Group V versus the antibodies of Group VI and VII or promoters of Group I and II are distinct both physically and functionally from one another and therefore have different modes of operation, different functions and different effects. Therefore, the inventions of the different groups are capable of supporting separate patents.

Inventions III, IV and VIII-X are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). The instant specification does not disclose that these methods would be used together. The method of producing transgenic plants using Group I, (Group III), a method for identification of modulators of promoters comprising cis elements of Group I, (Group IV), use of Group II to generate transgenic plants or pathogen resistant plants (Group VIII), use of Group IV to generate the production of pathogen resistant plants (Group IX), and a method of producing transgenic plant cells or tissues using the compositions of Group II (Group X) are all unrelated as they comprise

distinct steps and utilize different products which demonstrates that each method has a different mode of operation. The inventions of Group III, VIII and IX are all related in that they are methods of producing transgenic plants or pathogenic plants. However, each method utilizes distinct products by introduction of the products of Group I, II and IV and therefore performs this function using a structurally and functionally divergent material. The inventions of Group IV and X utilize distinct materials and methods from those of Groups III, VIII and IX. Specifically, the method of Group IV uses a sample comprising a transformed plant treated with an activator or an inhibitor in order to identify a modulator of genes expressed upon pathogen infection. The method of Group X inserts a cis element into a promoter of a gene to generate an elicitor-inducible promoter. Therefore, each method is divergent in materials and steps. For these reasons the Inventions III, IV and V are patentably distinct.

Furthermore, the distinct steps and products require separate and distinct searches. The inventions of Groups III, IV and VIII-X have a separate status in the art as shown by their different classifications. As such, it would be burdensome to search the inventions of Groups III, IV and VIII-X together.

Inventions I versus III, IV and X are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the cis elements of Group I can be use to detect elicitor inducible genes.

Searching the inventions of Groups I versus III, IV and X together would impose serious search burden. The inventions of Groups I versus III, IV and X have a separate status in the art as shown by their different classifications. Moreover, in the instant case, the search for the cis elements and method of producing transgenic plants using Group I, (Group III), a method for identification of modulators of promoters comprising cis elements of Group I, (Group IV), and a method of producing transgenic plant cells or tissues using the compositions of Group II (Group X) are not coextensive. Group I encompasses molecules which are claimed in regard to reference sequence SEQ ID NO:3 and 4, which are not required for the search of Group III, IV and X. In contrast, the search for Group III, IV and X would require a text search for the methods in addition to an oligonucleotide search of SEQ ID NO:3 and 4. Prior art, which teaches a polynucleotide that is SEQ ID NO:3 and 4 would not necessarily be applicable to the method of using the SEQ ID NO:3 and 4. Moreover, even if the polynucleotide product were known, the method of using the product may be novel and unobvious in view of the preamble or active steps.

Inventions II and VIII are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the polynucleotide can be used to detect elicitor inducible genes.

Searching the inventions of Groups II and VIII together would impose serious search burden. The inventions of Groups II and VIII have a separate status in the art as shown by their

different classifications. Moreover, in the instant case, the search for the polynucleotides of Group II and the method production of transgenic plants or pathogen resistant plants (Group VIII) using the polynucleotide are not coextensive. Group II encompasses molecules, which are claimed in regard to reference sequence SEQ ID NO:11, which are not required for the search of Group VIII. In contrast, the search for Group VIII would require a text search for the methods in addition to an oligonucleotide search of SEQ ID NO:11. Prior art, which teaches a polynucleotide that is SEQ ID NO:11 would not necessarily be applicable to the method of using the SEQ ID NO:11. Moreover, even if the polynucleotide product were known, the method of diagnosis using the product may be novel and unobvious in view of the preamble or active steps.

Inventions V and IX are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the compound can be used to activate transcription *in vitro*.

Searching the inventions of Groups V and IX together would impose serious search burden. The inventions of Groups V and IX have a separate status in the art as shown by their different classifications. Moreover, in the instant case, the search for the compound of Group V and the method of generating a pathogen resistant plants (Group IX) using the compound are not coextensive. The search for Group IX would require a text search for the methods in addition to a search for the compounds. Prior art, which teaches the compound would not necessarily be applicable to the method of using the compound. Moreover, even if the product were known, the method of using the product may be novel and unobvious in view of the preamble or active steps.

Inventions of Group I versus Groups VIII and IX are unrelated because the product of Group I is not used or otherwise involved in the process of Groups VIII and IX. Inventions of Group II and Groups III, IV, IX and X are unrelated because the product of Group II is not used or otherwise involved in the process of Groups III, IV, IX and X. Inventions of Group IV and Groups III, IV, VIII and X are unrelated because the product of Group II is not used or otherwise involved in the process of Groups III, IV, VIII and X. Inventions of Group V and III, IV, VIII, IX and X are unrelated because the product of Group V is not used or otherwise involved in the process of Groups III, IV, VIII, IX and X. Inventions of Group VI and VII and III, IV, VIII, IX and X are unrelated because the product of Group VI and VII are not used or otherwise involved in the process of Groups III, IV, VIII, IX and X.

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provision of MPEP 821.04. Process claims that depend for or otherwise include all the limitations of the patentable produce will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendment submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirements for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 USC 101, 101,

103 and 112. Until an elected product claim is found allowable, an otherwise proper restriction between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claim in light of *In re Ochiai, In re Brouwer* and 35 USC 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in loss of the right to rejoinder.**

Further, note that the prohibition against double patenting rejections of 35 USC 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP 804.01.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria B. Marvich, PhD whose telephone number is (571)-272-0774. The examiner can normally be reached on M-F (6:30-3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Remy Yucel, PhD can be reached on (571)-272-0781. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Maria B Marvich, PhD
Examiner
Art Unit 1633

June 19, 2005

DANIEL M. SULLIVAN
PATENT EXAMINER